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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,895	01/23/2007	Yoshiyuki Sasaki	R2184.0527/P527	2816

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EXAMINER
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PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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08/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,895	<b>Applicant(s)</b> SASAKI, YOSHIYUKI	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

The IDS documents have been received and reviewed (abstracts) and made of record.

#### ***Drawings***

Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

Claims are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In particular:

a) claims 27,28,29,31,33 do not further limit the apparatus recited in the parent claim 25/21 or 22.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 16-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claim 16 is drawn to a "computer program" *per se*, therefore, fail(s) to fall within a statutory category of invention.

A claim directed to a computer program itself is non-statutory because it is not:

A process occurring as a result of executing the program, or

A machine programmed to operate in accordance with the program, or

A manufacture structurally and functionally interconnected with the program in a manner which enable the program to act as a computer component and realize its functionality, or

A composition of matter.

See MPEP § 2106.01. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

The dependent claims fall accordingly.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2-9 and 22-29, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In particular, both sets of claims, i.e., those drawn to a method (2-9), and those drawn to the corresponding apparatus (22-29) recite/claim "independently for each of ...", however, the examiner cannot readily map this requirement to either the written specification or the figures, i.e., the disclosure, that provides sufficient support for such in order to enable the invention. Further clarification is required.

Furthermore, with respect to the claimed limitation of "... distributed manner" the same problem exists. Further clarification is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 23,27,28,29, 31 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These dependent claims recite desired functions but do not further limit any apparatus elements positively recited in their parent claim.

As far as the claims recite positive limitations and as interpreted by the examiner, the following rejections on art are made.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,10-13 and 21,30-33 are rejected under 35 U.S.C. 102(a/b) as being anticipated by either 6621782 or Fukushima et al.

With respect to apparatus claim 21, the following analysis is made:

An information recording apparatus for recording data on an information recording medium, comprising:	' 553	'782
setting means for dividing a data area of the information recording medium into a plurality of partial areas such that logical addresses continue and setting defect management information for each partial area;	see fig. 8	addressing capability of slip/linear replacement
recording means for recording data on the data area;	inherent	fig.1/element 26 & 6
and		
defect management means for performing defect management for a recording area where the data is recorded based on information on the recording area and the defect management information.	see below	fig 1 or 2 element 12

With respect to '782 (Nakane et al) applicants' attention is drawn to the disclosure of figures 1 and 2 thereof, the above cited elements are present. Since there is/are a plurality of sectors each one is interpreted as a partial area.

With respect to '553 (Fukushima et al) applicants' attention is drawn to the disclosure of figures 1-10 see for instance the disclosure starting at col. 1 line 10, wherein the appropriate elements are present - i.e., the setting means wrt the pdl and sdl, the appropriate recording means is inherently present - i.e., information is recorded, and the defect management means is at least the cpu – see col. 1 starting at line 58. The plurality of zones is interpreted as the plural partial areas.

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With respect to claims 10 and 30 such verification/correction is performed during start up of the systems and hence meeting these claimed limitations.

With respect to claims 11 and 31, such are set by the user.

With respect to claims 12 and 32, the dma are predefined.

With respect to claims 13 and 33, since both system operate on both a/v data obviously identifiers for such data types are inherently present.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 2 and 22 are rejected under 35 U.S.C. 102(a/b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the art as stated above or further in view of Okazaki et al and the acknowledged prior art..

With respect to these claims, as interpreted by the examiner,

Under 102 considerations:

a) Fukushima et al also discloses the ability of a plurality of defect lists, a/v data, etc.

The examiner concludes that the setting for the two areas, independent set refers to the pdl and sdl capability.

b) With respect to Nakane et al

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applicants' attention is drawn to the abstract wherein the information a/v and computer have different criteria and hence are independently established.

If applicant can convince the examiner that this is not what is meant by this claim, then under 103 considerations, the examiner relies upon the Okazaki et al system which also describes ability of having plural zones/data areas for separate data as well as the rom and re-writable areas see for instance the disclosure with respect to figures 6-10.

With respect to the acknowledged prior art as discussed with respect to figure 3 of this application, see for example the associated disclosure of paragraphs 82 -87 of corresponding PGPUB 2007/0189143 – description with respect to the sdl and pdl are taught.

It would have been obvious to modify the base system of Nakane et al with this additional teachings from Okazaki et al and the acknowledged prior art, motivation is as discussed in Okazaki et al - see col. 1 starting at line 48 and the acknowledged prior art with respect to the defect management areas..

6. Claims 3,4, 6 23,24,26 rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to the claims as stated in paragraphs 4 or 5 above, and further in view of Okazaki et al or alternatively with the acknowledged prior art.

Applicant's description of the acknowledge prior art of figure 3 is interpreted to read to the DVD+RW which only has one type of defective list capability, hence there is an area where no defective management is performed.

No dma is performed for the read only areas as taught by the Okazaki et al reference.

It would have been obvious to modify the base systems as stated in either paragraphs 4 or 5 above with the additional teaching from Okazaki et al, motivation is as discussed therein.

Claims 5,7-9 and 25,27-29 and 14 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to the claims as stated in paragraphs 4 or 5 above, and further in view of JP 05-217298.



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The MAT (machine assisted translation) of the above cited JP document is provided to applicant's representative's assistance. The entire document is relied upon, see for instance the disclosure with respect to the establishment of plural zones, address schemata therefor (logical) as well as the pointer capability.

The examiner interprets such as meeting the above noted claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Otsuka and Takahashi et al are cited as illustrative of alternative prior art dma capabilities in this environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thr: 6:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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